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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/007,899	11/05/2001	Olaf Turner	P01,0332	3107

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EXAMINER
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CHEN, TSE W

ART UNIT	PAPER NUMBER
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2116

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/007,899

Applicant(s)

TURNER ET AL.

Examiner

Tse Chen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 November 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 5-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-13 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment dated November 8, 2004.
2. All references were cited as prior art in previous Office Action.

#### ***Claim Objections***

3. Claim 1 is objected to because of the following informalities: “said second *batter* is absent” should be “said second *battery* is absent”. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant did not disclose the subject matter of “a second battery ... for supplying power to said security components *only* upon an outage of said main voltage” and “a battery switchover device for switching power supply to said security components from said second battery to said first battery *only* if power from said second battery is absent” in the original specification. Therefore, said subject matter is considered new and not eligible for prosecution in this application. However, Examiner still applies prior art to rejection of said subject matter in this Office Action.

#### ***Claim Rejections - 35 USC § 103***

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6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 5-8, 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davies, Jr. et al., U.S. Patent 5283792, hereinafter Davies, in view of Ryan, Jr. et al., U.S. Patent 6594760, hereinafter Ryan, and Fang et al., US Patent 5128552, hereinafter Fang.

8. In re claim 1, Davies discloses an electronic device [fig.1] comprising:

- A region containing a plurality of components [including CPU 10, controller 18, memory 16].
- A power source [inherently, a power source in the broadest interpretation is needed to supply vcc] adapted for connection to a mains voltage [vcc] for normally supplying power to said components [col.3, l.51 – col.4, l.56].
- A second battery [backup battery 22] disposed outside of said region for supplying power to said components only upon a *failure* of said main voltage [abstract; col.5, ll.22-53].
- A battery switchover device [switch 24] having a first input connected to a *first power source* and a second input connected to a *second power source* for switching power supply to said components from said second power source to said first power source only if power from said second power source has *failed* [fig.2; col.5, l.54 – col.6, l.2; Davies' teaching can generally be applied to the switchover of alternate power sources only in the event of a failure].

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- A monitoring unit [reset power fail detect 26 and power down control 27] disposed in said region and connected to said battery switchover device for evaluating voltage information [Vcc] associated with at least one of a voltage of said power source and a *voltage of said second battery* [col.5, 1.54 – col.6, 1.2].

9. Davies did not disclose explicitly the condition of absence or outage of power nor the details of a security region.

10. Regarding the security region, Ryan discloses an electronic device [cryptographic device 10] comprising:

- A security region [enclosed by 34] containing a plurality of security components [20, 22, 24, 26, 28] [fig.4; col.5, 1.60 – col.6, 1.6; cryptographic process security components].
- A first battery [capacitor C1] disposed in said security region [col.6, 11.35-49].
- A second *power source* [power line 30] disposed outside of said security region [col.6, 11.7-17].

11. It would have been obvious to one of ordinary skill in the art, having the teachings of Ryan and Davies before him at the time the invention was made, to modify the system taught by Davies to include the security region and internal first battery taught by Ryan, in order to obtain the electronic device comprising a security region containing a plurality of security components and a battery switchover device having a first input connected to said first battery [Ryan: c1] and a second input connected to said second battery [Davies: 22] for switching power supply to said security components from said second battery to said first battery only if power from said second battery has failed. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to protect sensitive user information [prevalent in computer

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systems] and processing elements in the event of a power failure [Davies: col.1, l.14 – col.2, l.8; Davies' teaching can generally be applied to the switchover of alternate power sources only in the event of a failure].

12. Regarding the condition of absence or outage of power, Fang discloses an electronic device [fig.1] comprising a battery switchover device [controller 16] for switching power supply only upon an outage or absence of a power source [ac power] [col.6, ll.7-29].

13. It would have been obvious to one of ordinary skill in the art, having the teachings of Fang and Davies before him at the time the invention was made, to modify the electronic device taught by Davies to include the teachings of Fang, in order to obtain the electronic device comprising a second battery for supplying power to said components only upon an outage of said main voltage and a battery switchover device for switching power supply to said components from a second power source to a first power source only if power from said second power source is absent. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to conserve battery power [Fang: col.3, ll.1-13; col.4, ll.11-13] and also a very well known way, suitable for use with the electronic device taught by Davies, to monitor power conditions.

14. As to claim 5, Davies discloses the battery switchover device that has an output [Vout] connected to components [memory 16] for supplying power thereto via said battery switchover device from one of said first power source [Vcc] and said second power source [backup battery 22], and wherein said device further comprises, in said security region, decoupling elements [transistors 104, 106] at said output [fig.4; col.5, ll.22-68; col.11, l.57 – col.12, l.17].

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15. As to claim 6, Davies discloses the decoupling elements that are selected from the group consisting of diodes [104 or 106] and controlled electronic switches [104 and 106] [col.11, l.57 – col.12, l.17].

16. As to claim 7, Ryan discloses the electronic device comprising a security module containing said monitoring unit and said security components [col.6, ll.4-6; unit and components integrated into a card module].

17. As to claim 8, Ryan discloses the security module that comprises the battery switchover device [col.6, ll.4-6; device, unit and components integrated into a card module].

18. As to claim 12, Fang discloses an electronic device [fig.1] comprising:

- A plurality of operating components [component 25; col.5, ll.25-38], and wherein a monitoring unit [25, 16] includes a processor [25d] for evaluating voltage information [col.7, ll.13-31], and wherein said processor is connected to at least one of said operating components and alters operation of said at least one of said operating components if said voltage information indicates an unperformed need to replace a second battery [backup battery 22] [col.6, ll.7-58; col.7, ll.13-31; col.7, l.49 – col.8, l.8].

19. As to claim 13, Fang discloses the processor that prevents operation of said at least one operating component after a predetermined delay [T3] if said voltage information indicates an unperformed need to replace said second battery [col.6, ll.30-58].

20. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fang, Ryan and Davies as applied to claim 1 above, and further in view of Wiley et al., U.S. Patent 6073085, hereinafter Wiley.

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21. In re claims 2-3, Fang, Ryan and Davies disclose each and every limitation of the claim as disclosed above in reference to claim 1. Ryan and Davies did not disclose expressly an analog-to-digital converter for converting voltage information into digital information and the details of the monitoring unit.

22. As to claim 2, Wiley discloses an electronic device [electronic unit 50] comprising:

- A monitoring unit [CPU 111, battery circuit 131, A/D converter 115, etc.] that comprises an analog-to-digital converter [A/D converter 115] for converting said voltage information into digital information [col.5, ll.18-29].

23. It would have been obvious to one of ordinary skill in the art, having the teachings of Wiley, Fang, Ryan and Davies before him at the time the invention was made, to use the analog-to-digital converter taught by Wiley with the electronic device disclosed by Fang, Ryan and Davies as the analog-to-digital converter taught by Wiley is a well known component suitable for use with the electronic device of Fang, Ryan and Davies. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to monitor the voltage of batteries [Wiley: col.5, ll.18-29].

24. As to claim 3, Wiley discloses an electronic device [electronic unit 50] comprising:

- The monitoring unit that that comprises a processor [CPU 111] supplied with digital information for evaluating the digital information to generate a signal indicating a supply status [table 1; service errors] representative of voltage information, and an externally visible indicator [display 117 with display processor 116] connected to said processor for receiving said status signal therefrom and for displaying a visual indication of said supply



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status [col.5, ll.40-54; col.6, ll.29-46; col.8, l.66 – col.9, l.12; col.9, ll.34-57; col.15, ll.53-65].

25. It would have been obvious to one of ordinary skill in the art, having the teachings of Wiley, Fang, Ryan and Davies before him at the time the invention was made, to modify the electronic device taught by Fang, Ryan and Davies to include the monitoring unit taught by Wiley, in order to obtain the electronic device comprising the monitoring unit that that comprises a processor supplied with digital information for evaluating the digital information to generate a signal indicating a supply status representative of voltage information, and an externally visible indicator connected to said processor for receiving said status signal therefrom and for displaying a visual indication of said supply status. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to ensure an electronic device is in good working order [Wiley: col.1, l.14 – col.2, l.40].

26. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fang, Ryan and Davies as applied to claim 1 above, and further in view of Mori et al., U.S. Patent 5039580, hereinafter Mori.

27. In re claims 9-11, Fang, Ryan and Davies disclose each and every limitation of the claim as disclosed above in reference to claim 1. Fang, Ryan and Davies did not discuss the details of the housing [Ryan: secure housing 34] or associated parts.

28. Mori discloses an electronic device [appliance; col.7, ll.40-46] comprising:

- As to claim 9, a battery compartment [6] for a second battery [backup battery 7c], closeable with a battery compartment cover [battery mount 20] [fig.2-4; col.7, l.47 – col.9, l.51].

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- As to claim 10, a housing [1] containing a region [printed circuit board 2, etc.] and said battery compartment, and having a sidewall [1b] in which said battery compartment cover is disposed [fig.2-4; col.7, l.47 – col.9, l.51].
- As to claim 11, a housing [1] containing a region [printed circuit board 2, etc.] and said battery compartment, and having a base [pocket 21] in which said battery compartment cover is disposed [fig.2-4; col.7, l.47 – col.9, l.51].

29. It would have been obvious to one of ordinary skill in the art, having the teachings of Mori, Ryan and Davies before him at the time the invention was made, to use the housing with the battery compartment and associated cover taught by Mori for the housing disclosed by Ryan and Davies as the housing taught by Mori is a well known housing suitable for use for the electronic device of Ryan and Davies. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to safely replace batteries [Mori: col.4, ll.19-39].

#### ***Allowable Subject Matter***

30. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

31. The following is a statement of reasons for the indication of allowable subject matter: the claims are allowable because none of the references cited, either alone or in combination, discloses or renders obvious an electronic device with all the limitations as stipulated in claim 4 and associated base and intervening claims.

#### ***Response to Arguments***

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32. Applicant's amended claims 8, 10, and 11 with respect to the objection of the previous Office Action have been fully considered. The objection of the claim informalities has been withdrawn.

33. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection as necessitated by amendment.

***Conclusion***

34. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tse Chen whose telephone number is (571) 272-3672. The examiner can normally be reached on Monday - Friday 9AM - 5PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tse Chen  
January 14, 2005

  
**LYNNE H. BROWNE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**